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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,505	03/16/2004	Michael Christopher Raftery	LCRL121839	1870
26389 7590 07/06/2007 CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347				
			EXAMINER WENDELL, MARK R	
			ART UNIT 3609	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,505	<b>Applicant(s)</b> RAFTERY ET AL.	
	<b>Examiner</b> Mark R. Wendell	<b>Art Unit</b> 3609.	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/16/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims claim an inner form being at least two floors in height and the outer form be approximately one floor in height. It is unclear how this would actually work as the concrete when poured into the volume defined by the forms would overflow onto the peripheral structure.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han (KR 10-2002-0021093) in view of Contevita (US 3396502) and Sachs et al. (US 2002/0026764). Han discloses and illustrates in Figures 1 and 3 a method for constructing a multistory concrete shear core (21b) building comprising the steps of:

- Erecting a steel subassembly (23, 25, 27) for a concrete shear core (21b) with the subassembly including a plurality of vertical columns (23), horizontal beams (25), and a rebar screen (3);
- Erecting a peripheral structure steel assembly (31, 34) including a plurality of vertical columns (not pictured) and horizontal columns (9, 31). The examiner notes that although the vertical columns are not illustrated within the figures, it is inherent that they would be necessary to construct the high-rise structure disclosed by Han.

Han does not disclose installing a plurality of floor structures, positioning an inner and outer form in order to define a volume to receive concrete pour, or the act of pouring concrete into the defined volume. However, Contevita discloses in Figures 1 and 2

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installing a plurality of floor structures (20) supported by a steel subassembly (12, 14) and peripheral structure (18). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method steps of erecting peripheral and steel subassembly structures of Han with the step of installing a floor structure of Contevita in order to provide a floor / ceiling structure for inhabitants to walk on and quarters to live / work in. The examiner notes that although the vertical columns mentioned above are not illustrated in Han, they are illustrated in Contevita as item 18 in Figure 1.

Neither Han nor Contevita disclose positioning an inner and outer form in order to define a volume to receive concrete pour, or the act of pouring concrete into the defined volume. However, Sachs illustrate in Figure 8 the method steps of disclose positioning an inner and outer form in order to define a volume to receive concrete pour (98) and the act of pouring concrete into the defined volume (100). The examiner notes that Sachs refers to the concrete as filler material, however on Page 2, column 2, paragraph 34, lines 9-10, Sachs says that the filler material is preferably concrete. It would have been obvious to one of ordinary skill in the art at the time the invention was made, with the motivation of providing concrete walls within a building, to combine the method steps of Han and Contevita described above with the act of forming a volume to pour concrete and actually pouring the concrete. The examiner notes that it is common knowledge within the art of building construction to form and pour concrete into a mold to construct concrete walls, floors, dividers, etc.

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Regarding claim 10, Contevita illustrates in Figure 1 a steel erection structure (10) and framing structure of at least 7 floors. The examiner notes that the steps of vertically extending the steel structure, repositioning the inner and outer forms, and pouring additional concrete to form subsequent floors is a mere duplication of the method steps claimed in claim 1.

Regarding claim 15, the additional method step of preassembling a plurality of steel erection segments is disclosed within the abstract of Han as step C, "assembling the steel frame beam on the anchor –connecting member. This step is done before pouring concrete and integrating forms into the structure, therefore constitutes "preassembling."

Regarding claims 2, 11 and 16, Han illustrates in Figure 3 the first plurality of vertical columns (23) disposed within the volume (21b) defined by the inner and outer form.

Regarding claims 3, 12 and 17, Contevita illustrates in Figures 1 and 2 a steel erection subassembly sized to support at least ten floors.

Regarding claims 4 and 18, Han illustrates in Figure 3 shows the steel erection subassembly being built from a plurality of segments (vertical beams 23, horizontal beams 25, connectors 27). The examiner notes that although a specific height is not given, the segments (23, 25) appear to be approximately two floors in height.

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Regarding claim 5, Figure 3 of Han illustrates the rebar screen (3) being fixedly attached to a horizontal beam (31) within the concrete (21b).

Regarding claims 7 and 21, the specification does not disclose erecting six additional subassemblies, however it would have been obvious to one of ordinary skill in the art at the time of invention to erect at least six additional steel assemblies and peripheral structures, since it has been held that mere duplication of the essential working parts of a device, or structure, involves only routine skill in the art (*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8). It is also obvious to one of ordinary skill in the art to construct multiple steel assemblies and peripheral structure based upon the size of the building being constructed. The more massive the building the more support it will need, thus six or more steel assemblies and peripheral structures would be necessary.

Regarding claims 8 and 22, Han Figure 3 illustrates horizontal beams (31) adjacent the outer form (34b) and being lockingly engaged within the concrete (21b). The examiner also notes that the horizontal beam (31) is a structural wide flange beam.

Regarding claims 9 and 23, the structure of Han in view of Contevita and Sachs is designed to support the completed multistory concrete shear core building. The examiner notes that claim 9 does not set forth, or limit, the structure of claim 1 from which it depends.

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Regarding claims 13, 14 and 19, Han illustrates in Figure 3 a steel erection structure being built from a plurality of one-tier segments containing vertical (23) and horizontal columns (25). Han also illustrates in Figure 3 a plurality of steel reinforcing bars (3).

Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han (KR 10-2002-0021093) in view of Contevita (US 3396502) and Sachs et al. (US 2002/0026764) as applied to claims 1-5, 7-19, 21-23 above, and further in view of Lundmark (US 5012627). It is described above what is disclosed by Han in view of Contevita and Sachs, however none of the references teach the inner form being at least two floors in height and the outer form being one floor in height. However Lundmark illustrates in Figure 8 an inner form (27) being two stories in height and an outer form (29) having a height of about 1 story. It would have been obvious to one having ordinary skill in the art at the time of invention to combine the structure of Han as modified by Contevita and Sachs with the dimensions of Lundmark to expedite and simplify the concrete molding process.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Han (US 2005/0115164) teaches a construction method for SRC structured high-rise building.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Wendell whose telephone number is (571) 270-



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3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor Batson  
Supervisory Patent Examiner  
Art Unit 3609

MRW  
June 27, 2007